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(54) **MOBILE GAME AND PROMOTION SERVICE**

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CPC ***G06Q 30/0207*** (2013.01)

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USPC 705/14
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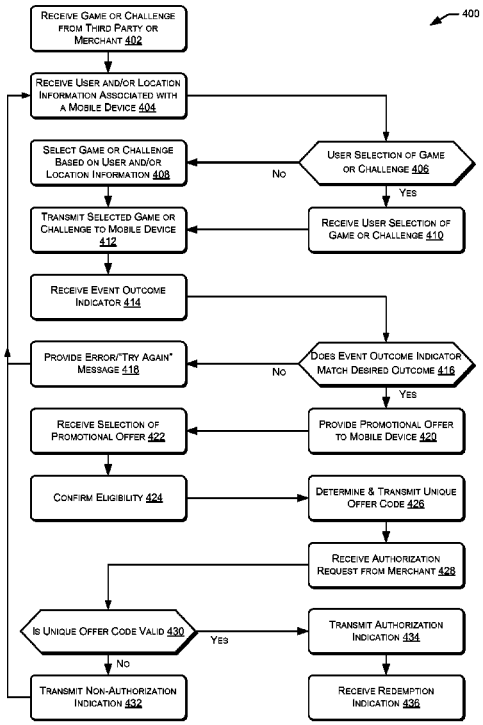
(57) **ABSTRACT**

Systems and methods for providing games, challenges, and/or promotions to mobile devices are usable to provide incentives to customers. According to one embodiment, a system can be provided. The system can be operable to receive information, such as location information, associated with a mobile device; transmit content being associated with a location of a merchant to the mobile device; receive an event outcome indicator associated with the content; provide a promotional offer to the mobile device when the event outcome indicator matches a desired event outcome indicated by a third-party or the merchant; and process the reward or promotional offer associated with the event outcome indicator via interaction with a point of sale system.

14 Claims, 4 Drawing Sheets



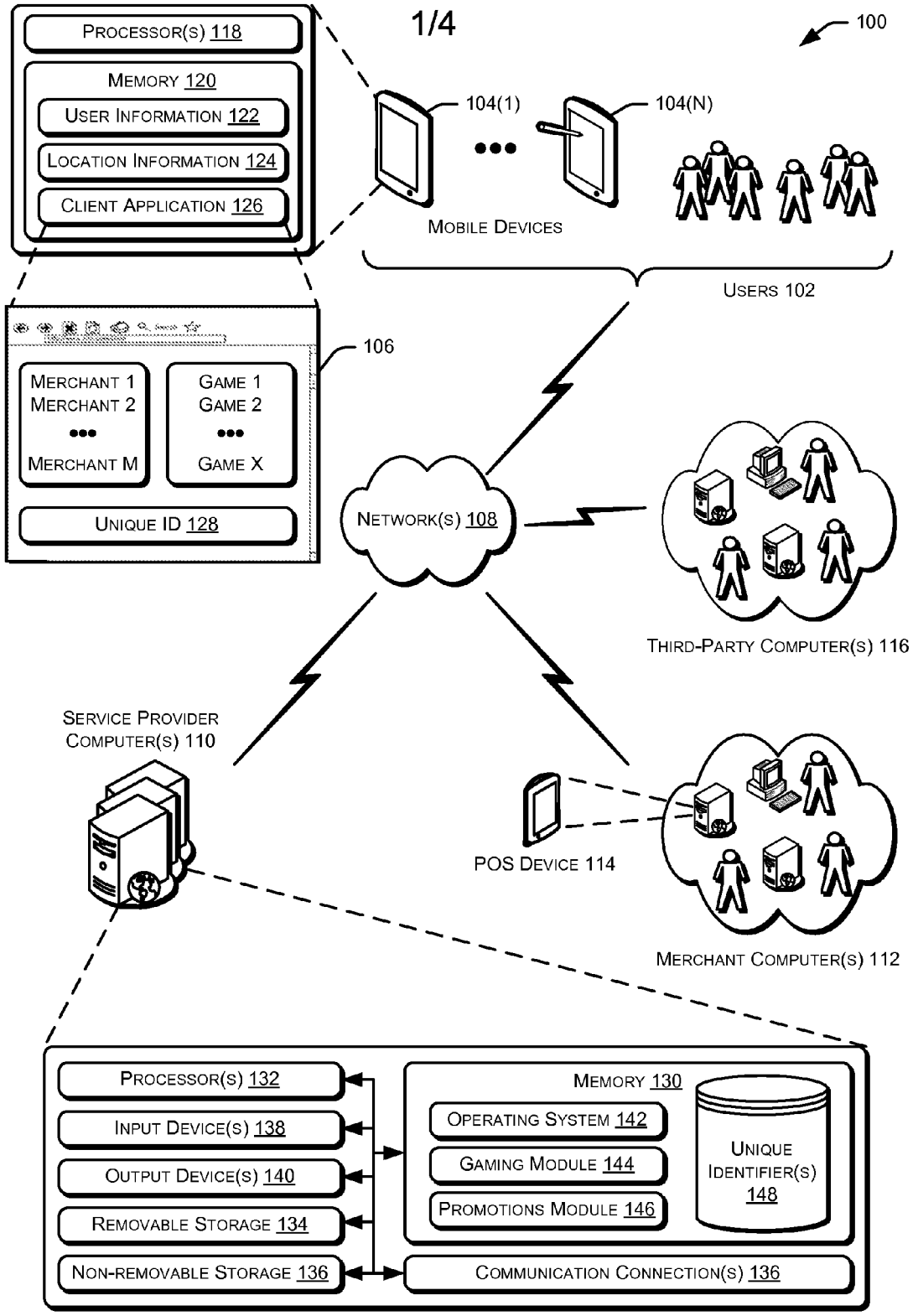

1/4
100
PROCESSOR(S) 118
MEMORY 120
USER INFORMATION 122
LOCATION INFORMATION 124
CLIENT APPLICATION 126
104(1)
104(N)
MOBILE DEVICES
USERS 102
106
MERCHANT 1
MERCHANT 2
MERCHANT M
GAME 1
GAME 2
GAME X
UNIQUE ID 128
NETWORK(S) 108
THIRD-PARTY COMPUTER(S) 116
SERVICE PROVIDER COMPUTER(S) 110
POS DEVICE 114
MERCHANT COMPUTER(S) 112
PROCESSOR(S) 132
INPUT DEVICE(S) 138
OUTPUT DEVICE(S) 140
REMOVABLE STORAGE 134
NON-REMOVABLE STORAGE 136
MEMORY 130
OPERATING SYSTEM 142
GAMING MODULE 144
PROMOTIONS MODULE 146
UNIQUE IDENTIFIER(S) 148
COMMUNICATION CONNECTION(S) 136

FIG. 1

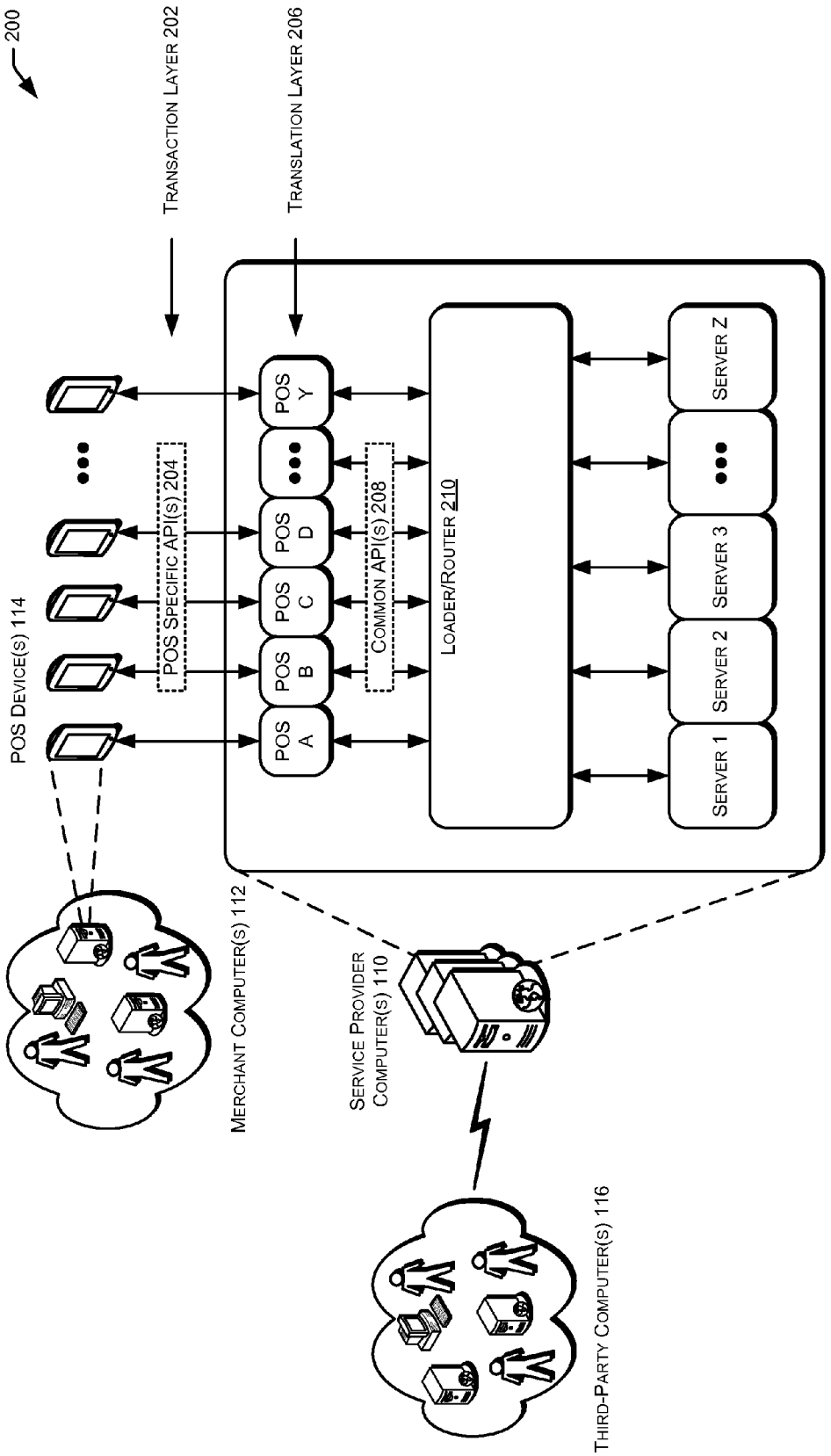

200
TRANSACTION LAYER 202
TRANSLATION LAYER 206
POS DEVICE(S) 114
POS SPECIFIC API(S) 204
COMMON API(S) 208
POS A
POS B
POS C
POS D
POS Y
LOADER/ROUTER 210
SERVER 1
SERVER 2
SERVER 3
SERVER Z
MERCHANT COMPUTER(S) 112
SERVICE PROVIDER COMPUTER(S) 110
THIRD-PARTY COMPUTER(S) 116

FIG. 2

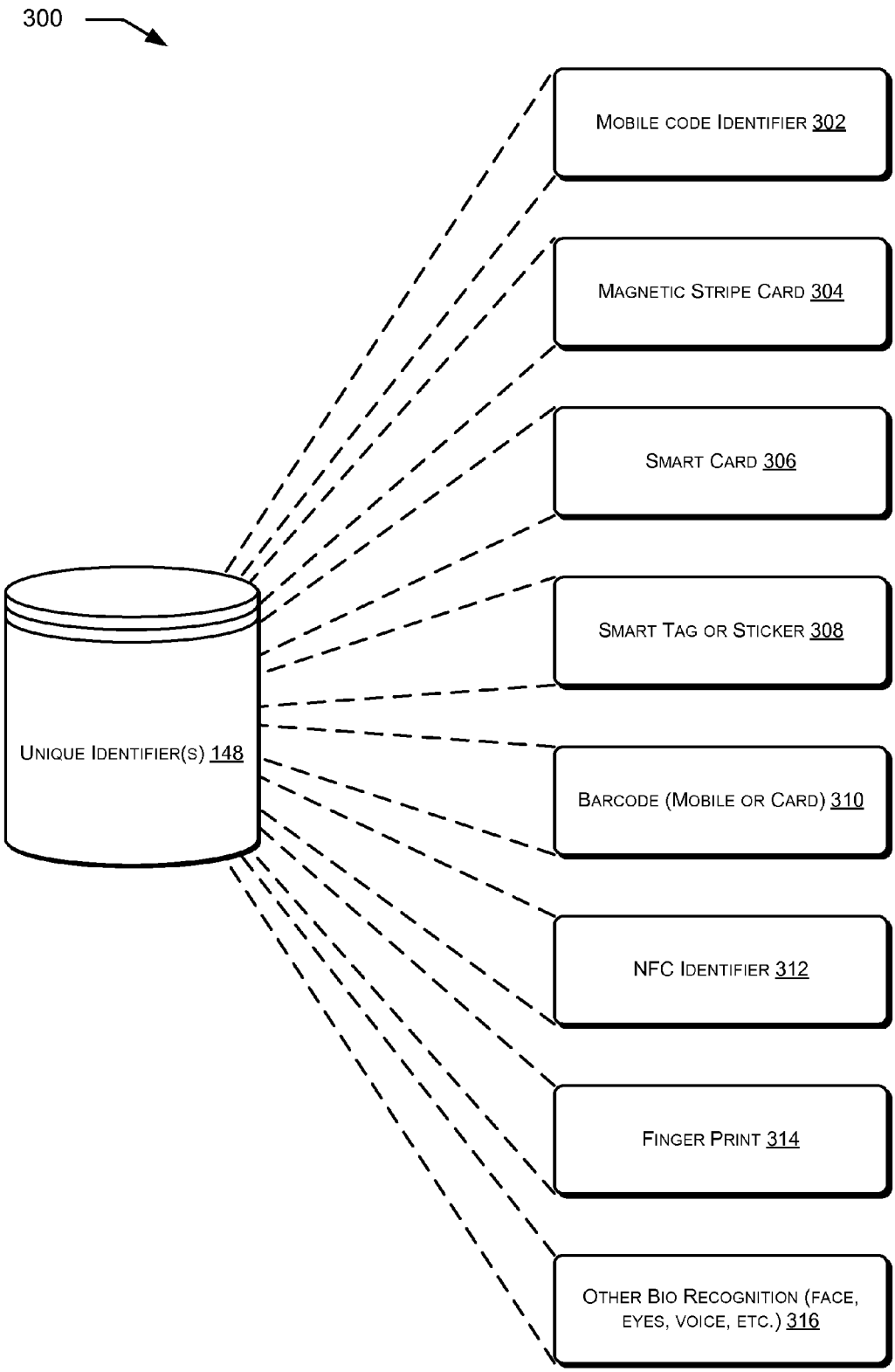

300
Mobile code Identifier 302
Magnetic Stripe Card 304
Smart Card 306
Smart Tag or Sticker 308
Unique Identifier(s) 148
Barcode (Mobile or Card) 310
NFC Identifier 312
Finger Print 314
Other Bio Recognition (face, eyes, voice, etc.) 316

FIG. 3

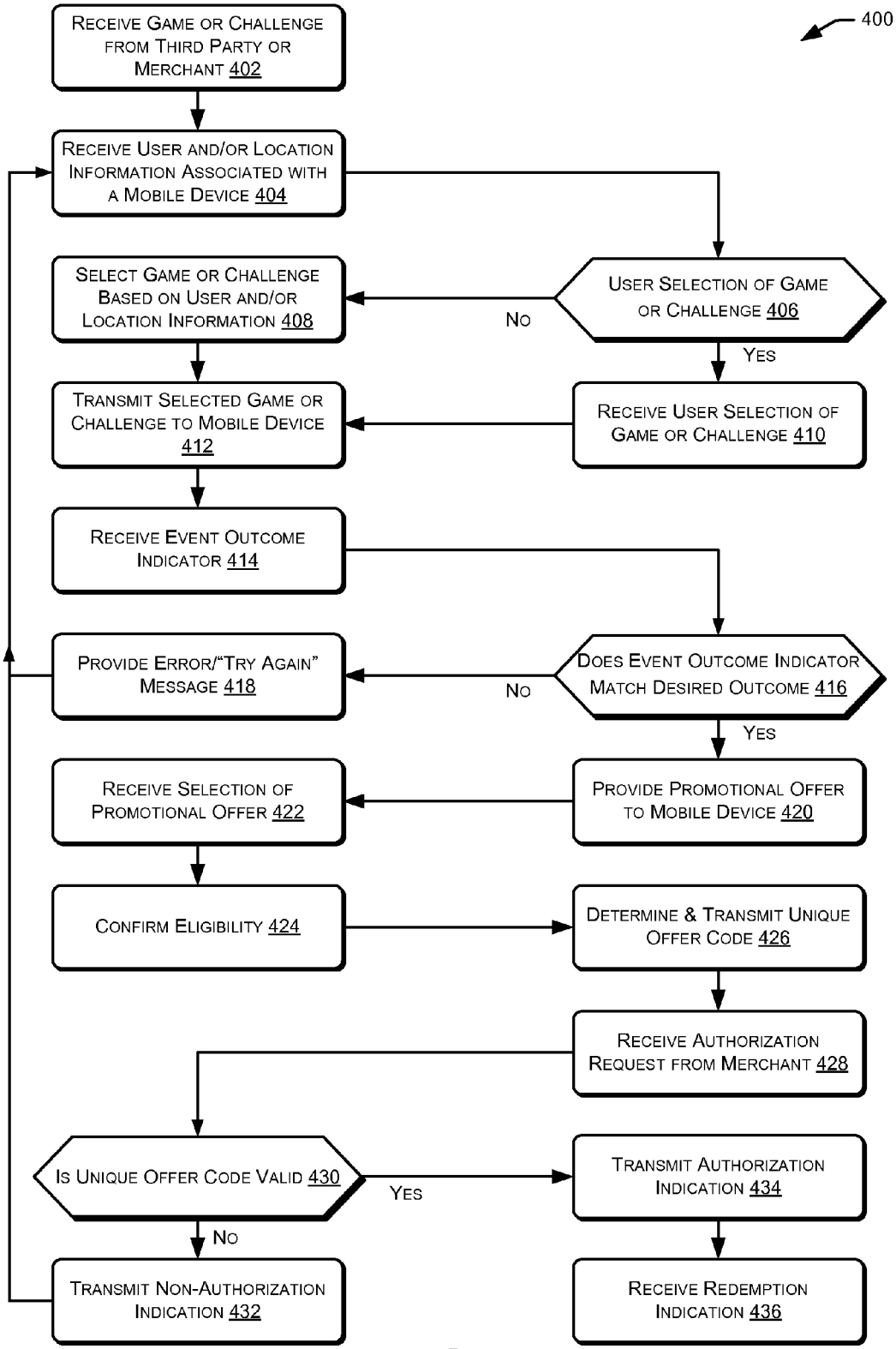

400
Receive Game or Challenge from Third Party or Merchant 402
Receive User and/or Location Information Associated with a Mobile Device 404
User Selection of Game or Challenge 406
No
Yes
Select Game or Challenge Based on User and/or Location Information 408
Receive User Selection of Game or Challenge 410
Transmit Selected Game or Challenge to Mobile Device 412
Receive Event Outcome Indicator 414
Does Event Outcome Indicator Match Desired Outcome 416
No
Yes
Provide Error/"Try Again" Message 418
Provide Promotional Offer to Mobile Device 420
Receive Selection of Promotional Offer 422
Confirm Eligibility 424
Determine & Transmit Unique Offer Code 426
Receive Authorization Request from Merchant 428
Is Unique Offer Code Valid 430
Yes
No
Transmit Authorization Indication 434
Receive Redemption Indication 436
Transmit Non-Authorization Indication 432

FIG. 4

MOBILE GAME AND PROMOTION SERVICE

BACKGROUND

In both traditional brick-and-mortar stores and e-commerce sites, merchants often provide promotions to incentivize customers to purchase goods and/or services. For instance, a merchant may provide a coupon to a potential customer in the hopes that the potential customer will eventually make a purchase. If the customer is pleased with the purchase they may return for subsequent purchase.

However, while these situations illustrate instances where a promotion may entice a customer to purchase goods and/or services, in many instances the customer may never enter the merchant's establishment and/or may not be encouraged to return. For example, especially in today's mobile world, the customer may use an online coupon and have the product delivered. As such, finding ways to encourage mobile customers to purchase goods and/or services at physical brick-and-mortar locations and ways to incentivize repeat business continues to be a priority.

BRIEF DESCRIPTION OF THE DRAWINGS

The detailed description is set forth with reference to the accompanying figures. In the figures, the left-most digit(s) of a reference number identifies the figure in which the reference number first appears. The use of the same reference numbers in different figures indicates similar or identical items.

FIG. **1** illustrates an example architecture for providing games, challenges, and/or promotional content associated with a merchant to a mobile device, according to an illustrative embodiment of the invention.

FIG. **2** illustrates an example architecture for communication between a third-party or merchant point of sale (POS) device and a service provider computer for providing games, challenges, and/or promotional content associated with the merchant to a mobile device, according to an illustrative embodiment of the invention.

FIG. **3** illustrates a memory storage device for storing a plurality of unique identifiers for use, in some examples, with the architectures of FIGS. **1** and/or **2**, according to an illustrative embodiment of the invention.

FIG. **4** illustrates an example flow diagram of an embodiment of a process for providing games, challenges, and/or promotional content associated with the merchant to a mobile device, according to an illustrative embodiment of the invention.

DETAILED DESCRIPTION

Overview

Embodiments of the present disclosure are directed to, among other things, providing games and promotional content to mobile devices, including near-field communication (NFC) devices. As an overview, content may be a game, a challenge, a question, a promotion, a coupon, a coupon code, a unique identifier, a product, a service, a sellable unit, a user profile, location information, or anything else that can be transmitted to a mobile device or other computing device. An on-line (or brick-and-mortar) merchant, a third-party vendor (e.g., a consumer goods manufacturer or other consumer packaged goods (CPG) provider), or a third-party game provider (e.g., a software or video game developer or any other third-party, merchant or otherwise, that wishes to provide games and/or challenges) may provide games and/or challenges for mobile devices and their users (i.e., the consumer). Once a condition is satisfied regarding the game and/or challenge (e.g., a challenge question is answered correctly or a game is won), promotional content may be provided to the consumer. In some aspects, promotional content may include a coupon or other discount for use at a merchant's, third-party vendor's, or third-party game provider's establishment or website. Additionally, in some aspects, the promotional content may include a unique identifier for indicating to the merchant that the consumer earned a coupon or discount.

In some instances, a service provider may receive, store, and/or manage games, challenges, and/or promotional content provided by merchants, third-party vendors, and/or third-party game providers. By way of example only, a merchant may include a restaurant, a convenience store, a supermarket, a retail store, a doctor or other service provider, an on-line store, a mechanic, a wholesaler, or any other type of business that provides goods and/or services to consumers. Similarly, a third-party vendor may include any of the above types of merchants and/or providers of products and/or services that are sold at, but are not necessarily directly associated with, the merchant. For example, a provider of a brand of soda sold exclusively or otherwise at a restaurant may be a third-party vendor. Further, a third-party game provider may be a merchant or a vendor that provides games and/or challenges associated with merchants and/or third-party vendors or that may be provided for interaction with, or based on outcomes of, merchants and/or third-party vendors. For example, an entity that provides, in some instances for advertisement purposes, a game and/or challenge that relies on an outcome associated with a third-party vendor may be a third-party game provider.

In some examples, the service provider may receive location and/or user information associated with a mobile device. Additionally, the service provider may receive games and/or challenges intended for particular mobile devices (e.g., devices belonging to members of certain demographic and/or groups). Alternatively, or in addition, the games and/or challenges may be intended for devices that are located in certain geographic locations. For example, a retail store (or chain of retail stores) may provide a game and/or challenge to the service provider that is intended for mobile devices within a predefined distance from the physical location of the retail store (or one of the chain of retail stores). In this way, particular mobile devices may be targeted when the service provider receives information indicating that a mobile device is within the range (e.g., within a mile of the location, within five miles of the location, within the same city or county as the location, or traveling towards the location from any distance).

In some instances, a consumer may control a mobile device and activate an application or other software program for playing games and/or completing challenges. The application or software program may display the games and/or challenges that were received from the service provider. In some examples, the consumer may be presented with one or more games and/or challenges provided by the service provider. For example, the service provider may determine an appropriate list or set of games and/or challenges for the consumer based on the physical location of the consumer or the mobile device of the consumer or based on the user information associated with the consumer or the mobile device of the consumer. This appropriate list, set, or other grouping of determined games and/or challenges may be

transmitted to the mobile device, and/or retrieved from memory of the mobile device in whole or in part, for presentation. Alternatively, or in addition, the service provider may transmit information related to one or more merchants that the service provider determines is appropriate based on the location information, the user information, or a combination. In this example, the consumer may select a merchant, rather than a game and/or challenge, and the game and/or challenge associated with the selected merchant may then be presented.

In some aspects, games and/or challenges may be interactive and/or graphical video-type games, such as but not limited to first-person shooter games, adventure games, role-playing games, and the like. However, games and/or challenges may also include trivia questions, word scrambles, scavenger hunts, outcomes of sporting or other events, and the like. In one non-limiting example, a game and/or challenge may request a consumer to identify the third wine on a wine list of a particular restaurant or a manager's name. In another non-limiting example, a game and/or challenge may request the consumer to frequent one or more locations or purchase items and services from a number of different merchants in order to complete the game and/or challenge. Additionally, in yet another non-limiting example, a game and/or challenge may request that the consumer attend, "check-in," or otherwise be near an event, such as a sporting event, when a particular outcome occurs (e.g., a baseball team scores a pre-defined number of homeruns in a game). Other examples may include collecting items from merchant's stores or answering historical trivia questions about the merchant, a third-party vendor, a third-party game provider, or other entities, locations, or events.

In certain examples, once a consumer has successfully completed a game and/or challenge, the mobile device or merchant (e.g., a batch or real-time delivery of consumer information/ID) may transmit an outcome event indication or response to the service provider. The service provider may be configured to determine whether the game and/or challenge was completed correctly (or at least to the satisfaction of the merchant and/or third-party vendor/game provider), whether the mobile device is registered with the service provider, and/or whether the game and/or challenge is still valid. In some instances, the service provider may provide a unique identifier to the mobile device. This unique identifier may be presented to the merchant to indicate that the consumer has earned a promotion, coupon, and/or discount. Upon verification of the unique identifier, either locally or with the service provider, the merchant may then discount the price of a specific item or group of items or the total sales price for items purchased and/or services provided for the consumer.

In some examples, a point of sale (POS) device located at the merchant may be integrated with software for performing the disclosed features and may be communicatively coupled to a computer of the service provider such that these features may be performed automatically, seamlessly, and/or in real-time. The POS system may receive the unique identifier by the merchant or consumer with a card scan or swipe, barcode scan from the mobile device display, keypad entry, touch screen for input, mouse input, the transmission of a signal from the mobile device via near field communication ("NFC"), or capturing other biometric input from the consumer such as fingerprint, voice, eye, or facial features. As such, the POS device may receive the unique identifier, verify with the service provider (or against identifiers stored locally), and provide the discount to a pending transaction in real-time or near real-time. Additionally, in some examples, the POS device or the merchant may record or otherwise maintain a list of consumers that have successfully completed the challenge and/or game. In this example, the POS device or the merchant may periodically (or in real-time) transmit unique identifiers and/or the list of consumers that have completed tasks to the service provider.

Additionally, in some instances, the service provider may receive and record an indication that a consumer and/or mobile device has redeemed a promotion with a particular merchant and may allow the consumer to interact with (e.g., by "unlocking") the next game and/or challenge associated with that particular merchant. In this way, the consumer may be incentivized to return to that particular merchant creating repeat business for the merchant and/or third-party vendor/game provider. As used herein, "unlocking" refers to providing games and/or challenges to users that were previously "locked" or otherwise unavailable. That is, a "locked" game or challenge may be visible to a user in that it may be selectable or viewable; however, the user may not be able to participate and/or complete the game and/or challenge. In some aspects, the "locked" games and/or challenges provide greater rewards than the "unlocked" ones, thus encouraging users to complete games and/or challenges to further "unlock" additional games and/or challenges. This may also promote repeat customers.

For example, upon selecting a merchant for the first time, a first game and/or challenge may be automatically "unlocked" such that the user may be able to select, interact with, and/or play/complete the game and/or challenge. In some instances, this may be considered the first level. As games are completed, and new games are "unlocked," the user may progress to higher levels. In some aspects, advancing to the next level may include the possibility of increased rewards. That is, in some examples, the next level may provide a greater discount or a more valuable reward (or at least the opportunity for a greater discount or more valuable reward) than the last level.

Further, social networking may be utilized to allow users to interact with other social network members to promote the service provider and/or the promotions platform. For example, promoting the promotions platform and/or recruiting new members via a social networking site may lead to increased discounts for the user who initiates the promotion and/or the recruitment.

The following discussion begins with a section entitled "Illustrative Architecture," which describes a non-limiting environment in which a service provider may interact with one or more mobile devices, one or more merchants, and/or one or more third-party vendors/game providers for providing games, challenges, and/or promotions to users and/or mobile devices. The discussion then concludes with a section entitled "Illustrative Processes" and a brief conclusion.

This brief introduction, including section titles and corresponding summaries, is provided for the reader's convenience and is not intended to limit the scope of the claims, nor the proceeding sections. Furthermore, the techniques described above and below may be implemented in a number of ways and in a number of contexts. Several example implementations and contexts are provided with reference to the following figures, as described below in more detail. However, the following implementations and contexts are but a few of many.

Illustrative Architecture

FIG. **1** depicts an illustrative architecture **100** in which techniques for providing games, challenges, and/or promotions to mobile devices may be implemented. In architecture **100**, one or more users **102** may utilize mobile computing

devices (or NFC devices) **104**(1), . . . , **104**(N) to access a client application interface (or website) **106** that may be provided by, created by, or otherwise associated with a service provider via one or more networks **108**. In some instances, the mobile computing devices (collectively **104**) may be configured to present or otherwise display the client application interface **106** to one or more users **102**. The networks **108** may include any one or a combination of multiple different types of networks, such as cable networks, the Internet, wireless networks, and other private and/or public networks. While the illustrated example represents users **102** accessing the client application interface **106** over the networks **108**, the described techniques may equally apply in instances where the users **102** interact with a service provider via a personal computer, over the phone, via a kiosk, or in any other manner. It is also noted that the described techniques may apply in other client/server arrangements (e.g., set top boxes, etc.), as well as in non-client/server arrangements (e.g., locally-stored software applications, etc.).

In some aspects, and as described briefly above, the client application interface **106** may allow the users **102** to access, receive from, transmit to, or otherwise interact with a service provider via one or more service provider computers **110**. In some examples, the client application interface **106** may also allow users to receive games, challenges, and/or promotions from the service provider computers **110** over the networks **108**. Through the client application interface **106**, the users **102** may play games, complete challenges, answer trivia questions, and/or receive information.

The architecture **100** may also include one or more merchant computing devices **112**. The merchant computing devices **112** may be any type of computing devices, such as but not limited to, mobile, desktop, and/or cloud computing devices, such as servers. In some examples, the merchant computers **112** may be in communication with the service provider computer **110** via the networks **108**, or via other network connections. The merchant computers **112** may include one or more servers, perhaps arranged in a cluster, as a server farm, or as individual servers not associated with one another. These servers may be configured to host a website viewable via the client application interface **106** or any other Web browser accessible by a user **102**, such as but not limited to one or more of the mobile devices **104**. Additionally, in some aspects, the merchant computers **112** may be configured to create and/or provide games and/or challenges for the mobile devices **104**.

In some embodiments, a merchant computer **112** may be coupled with, or integrated within, a POS device **114** for completing transactions with customers or users **102**. The POS device **114** may be configured to process purchase transactions of a user **102** either at a brick-and-mortar location or accessible via the Internet and may include, but are not limited to, handheld POS devices, desktop-style, kiosk-style, and/or register-style POS devices. In some aspects, the features of the service provider computer **110** may be integrated within the POS device **114** such that the POS device may be able to read, identify, or otherwise receive input regarding a completed challenge and/or won game on a mobile device **104**.

The architecture **100** may also include one or more third-party computing devices **116**. The third-party computing devices **116** may also be any type of computing devices, such as but not limited to, mobile, desktop, and/or cloud computing devices, such as servers. In some examples, the third-party computers **116** may be in communication with the service provider computer **110** via the networks **108**, or via other network connections. The third-party computers **116** may include one or more servers, perhaps arranged in a cluster, as a server farm, or as individual servers not associated with one another. These servers may be configured to host a website viewable via the client application interface **106** or any other Web browser accessible by a user **102**, such as but not limited to one or more of the mobile devices **104**. Additionally, in some aspects, the third-party computers **116** may be controlled by third-party vendors and/or third-party game providers and may be configured to create and/or provide games and/or challenges for the mobile devices **104**.

The mobile devices **104** may be any type of computing devices, including but not limited to mobile phones, personal digital assistants (PDAs), tablets personal computers (PCs), game consoles, set-top boxes, and the like. In some instances and as illustrated, each user computing device **104** may be equipped with one or more processors **118** and memory **120** to store applications and data, such as user information **122**, location information **124**, and a client application **126** that displays the client application interface **106** and/or enables access to the Web site **106** stored on the service provider computers **110** or elsewhere.

The user information **122** may be personal information associated with the user **102** of the computing device **104**. For example, the user information **122** may include the name, age, sex, address, telephone number, etc. of the user **102**. This user information **122** may be provided by the user **102** or may be aggregated by the service provider computer **110** or some other service, and transmitted to the mobile device **104**. The location information **124** may be based on the physical location of the mobile device **104**. This location information **124** may be provided by, or otherwise determined by, GPS, triangulation, Internet protocol (IP) address, router location, or any other methods for determining a location of a mobile device **104**.

In some aspects, the client application interface **106** may provide a list of merchants determined to be within a predetermined distance of the mobile device **104**, such as Merchants **1**, **2**, . . . , M. For example, the Merchants **1**-M may be Merchants determined to be within one mile, or some other distance, of the mobile device **104** or they may be merchants associated with games selected by the user **102**. Alternatively, or in addition, the client application interface **106** may provide a list of available games and/or challenges associated with merchants within a predetermined distance of the mobile device **104** and/or associated with information about the user **102** of the computing device **104**, such as Games **1**, **2**, . . . , X. For example, the Games **1**-X may be games available, or provided by, merchants within the predetermined distance, or they may be games associated with, or otherwise provided by, merchants selected by the user **102** regardless of location. Additionally, once a user **102** has correctly completed and/or answered a game and/or challenge, the client application interface **106** may be configured to display a unique identifier (ID) **128**.

As noted above, in some aspects, games and/or challenges transmitted to the mobile devices **104** may be provided by the merchant computers **112** and/or the third-party computers **116**. In one example embodiment, a first merchant computer, for example Merchant **1**, may be a computing device controlled by a restaurant owner, manager, or employee and may transmit a game or challenge, for example Game **1**, to the service provider computer **110**. Similarly, Merchant **2**, possibly a different restaurant, may provide and/or transmit a different game, for example, Game **3**, to the service provider. In this example, the respective games and/or challenges may be 1) a request for a user **102**

to learn the first restaurant manager's name and 2) a request for a user **102** to learn the fifth wine on the wine list of the second restaurant. In some aspects of this example, the user **102** may select the first game based on personal preference even if it is not geographically close to the user **102**. The user **102** may then go to the first restaurant, ask for the manager's name, and enter the answer, or select from a list (e.g., in a multiple-choice question format), into the client application interface **106**. An event outcome indicator may then be transmitted to the service provider computer **110** indicating that the user **102** is attempting to complete the challenge. Alternatively, the answer, and thus, the event outcome indicator, could be entered via a Web interface.

Upon transmitting the event outcome indicator to the service provider computer, the mobile device **104** may also transmit location information. In some aspects, the service provider computer **110** may validate the answer in the event outcome indicator by comparing it to the answer provided by the merchant computer **112**. The service provider computer **110** may also, optionally, verify that the user **102** is actually at the location of the first restaurant if that is part of the challenge provided by the merchant computer **112**. Alternatively, however, the validation and/or storage of the answer may take place on the mobile device **102** without any transmission to the service provider computer **110**, for example in instances when there are bandwidth and/or connectivity issues or, optionally, it is not required by the provider of the promotion. In some examples, the service provider computer **110** may also verify that the user **102** is a registered user, that the game and/or challenge is still a valid game and/or challenge, and/or that the game and/or challenge was appropriately "unlocked" by the user **102** prior to completion.

In some aspects, once the service provider computer **110** determines that the event outcome indicator indicates a completed challenge, and other validations/verifications are complete, the unique ID **128** may be transmitted to the mobile device **104**. The unique ID **128** may, in some instances, be unique for each transaction, game, challenge, user **102**, and/or merchant. The unique ID **128** may then be presented to the merchant at the physical location, whereby the merchant or consumer may perform one of the following to transmit the unique ID **128** to the merchant computer **112** or POS device **114**: card scan or swipe, barcode scan from the mobile device display, keypad entry, touch screen for input, mouse input, the transmission of a signal from the mobile device via NFC, or capturing other biometric input from the consumer such as fingerprint, voice, eye, or facial features. The unique ID **128** may then be transmitted from the POS device **114** or the merchant computer **112** to the service provider computer **110**, and validated by the service provider computer **110**. If validated, the service provider computer **110** may then indicate that the merchant should provide the associated promotion to the user **102**, for example, because the user **102** has won the game and/or completed the challenge. Once completed, the next game and/or challenge may be "unlocked" for the user **104**. In some instances, the discounts and/or promotions may become increasingly valuable as the user **102** "unlocks" additional games and/or challenges.

In another example embodiment, games and/or promotions may be provided by third-party vendors, game providers, or merchants, controlling third-party computers **116**. For example, a third-party vendor may include a seller of a product that is sold at a merchant's store. In this embodiment, a third-party vendor may provide a game that requests a user **102** to complete one or more challenges related to the merchant store where the third-party vendor's product is sold or related to the third-party product. In one example, the third-party vendor may be a soda vendor and the game and/or challenge may be to purchase the third-party vendor's soda at a certain number of participating merchant stores. As such, the event outcome indicator may indicate to the service provider computer **110** that the user **102** has purchased the third-party vendor's soda at three participating stores. If this completes the challenge, the unique ID **128** may be provided to the mobile device **104** and the user **102** may be able to redeem for a promotion related to either one of the participating stores, another merchant, or the third-party vendor.

In another example, a third-party game provider may include a software or video game developer associated or affiliated with a third-party vendor or a merchant. In this embodiment, a third-party game provider may provide a game, such as a video game, that requests a user **102** to satisfy a particular game criteria, such as winning a level or achieving a particular score within the video game. In one example, the third-party game provider and the service provider computer **110** may be integrated such that the service provider computer **110** is aware of when a user **102** satisfies the game criteria. However, in some examples, the service provider computer **110** is not integrated with the third-party computer **116** and may receive or request information to indicate when the user **102** satisfies the game criteria. Either way, once the game criteria is satisfied, a unique ID **128** may be provided to the mobile device **104** and the user **102** may be able to redeem for a promotion related to a merchant, a third-party vendor, and/or the third-party game provider.

In yet another example, a third-party game provider may include a vendor or merchant that provides a game and/or challenge that is independent from, not affiliated with, or tangentially affiliated with a third-party vendor or merchant, yet the game and/or challenge may be tied to the third-party vendor or merchant. In this embodiment, a third-party game provider may provide a game and/or challenge that requests a user **102** to participate in an event involving a third-party vendor or other entity for a chance to redeem a prize, award, coupon, and/or promotion at a separate merchant. In one example, the third-party game provider may request that the user **102** witness an event by a team, such as attend a baseball game, football game, or other event that may provide an outcome. In this example, the venue may represent the third-party vendor. When a particular event outcome is witnessed (e.g., the home team scores a certain number of runs, hits a number of homeruns, etc.) by the user **102**, the user **102** may be eligible for a promotion, coupon, and/or discount at a merchant separate from the third-party vendor and the third-party game provider. For example a telephone company (i.e., a third-party game provider in this example) may provide a game that requests a user **102** to attend a baseball game (i.e., a third-party vendor in this example) and, if the outcome is achieved (e.g., two or more homeruns by the home team) the user **102** may be eligible for a discount at a participating restaurant (i.e., a third-party merchant in this example), some other merchant, or even at the telephone company that provided the incentive.

In some aspects, one or more servers, perhaps arranged in a cluster or as a server farm, may host the service provider **110**. Other server architectures may also be used to host the service provider **110**. The service provider computers **110** are capable of handling requests from many users **102** and serving, in response, various games, challenges, promotions, unique identifiers, and/or user interfaces that can be rendered at user computing devices **104**(**1**)-(N).

In one illustrative configuration, the service provider computer **110** comprises at least a memory **130** and one or more processing units (or processor(s)) **132**. The processor(s) **132** may be implemented as appropriate in hardware, software, firmware, or combinations thereof. Software or firmware implementations of the processor(s) **132** may include computer-executable or machine-executable instructions written in any suitable programming language to perform the various functions described.

Memory **130** may store program instructions that are loadable and executable on the processor(s) **132**, as well as data generated during the execution of these programs. Depending on the configuration and type of service provider computer **110**, memory **130** may be volatile (such as random access memory (RAM)) and/or non-volatile (such as read-only memory (ROM), flash memory, etc.). The service provider computer **110** or server may also include additional removable storage **134** and/or non-removable storage **136** including, but not limited to, magnetic storage, optical disks, and/or tape storage. The disk drives and their associated computer-readable media may provide non-volatile storage of computer-readable instructions, data structures, program modules, and other data for the computing devices. In some implementations, the memory **130** may include multiple different types of memory, such as static random access memory (SRAM), dynamic random access memory (DRAM), or ROM.

The memory **130**, the removable storage **134**, and the non-removable storage **136** are all examples of computer-readable storage media. For example, computer-readable storage media may include volatile and non-volatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Memory **130**, removable storage **134**, and non-removable storage **136** are all examples of computer storage media. Additional types of computer storage media that may be present include, but are not limited to, programmable random access memory (PRAM), SRAM, DRAM, RAM, ROM, electrically erasable programmable read-only memory (EEPROM), flash memory or other memory technology, compact disc read-only memory (CD-ROM), digital versatile discs (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the service provider computer **110** or other computing device. Combinations of any of the above should also be included within the scope of computer-readable media.

Alternatively, computer-readable communication media may include computer-readable instructions, program modules, or other data transmitted within a data signal, such as a carrier wave, or other transmission. However, as used herein, computer-readable storage media does not include computer-readable communication media.

The service provider computer **110** may also contain communications connection(s) **136** that allow the service provider computer **110** to communicate with a stored database, another computing device or server, user terminals, and/or other devices on a network. The service provider computer **110** may also include input device(s) **138** such as a keyboard, mouse, pen, voice input device, touch input device, etc., and output device(s) **140**, such as a display, speakers, printer, etc. In some instances, the input device(s) **138** and the output device(s) **140** may also include data transmission inputs and outputs such that data, including but not limited to user information, location information, content, games, challenges, event outcome indicators, promotional offers, selection information, unique offer codes, authorization requests, authorization indications, redemption indicators, and the like, may be received by and/or transmitted from the service provider computer **110**.

Turning to the contents of the memory **130** in more detail, the memory **130** may include an operating system **142** and one or more application programs or services for implementing the features disclosed herein including a gaming module **144**, a promotions module **146**, and/or a unique ID datastore **148**. The gaming module **144** may be configured to receive, store, create, and/or determine outcomes of games and/or challenges provided by merchant computers **112**. Additionally, the promotions module **146** may be configured to receive, store, create, determine, and/or manage promotions of the merchants and/or third party vendors. Further, the unique ID datastore **148** may be configured to maintain, or otherwise store, the unique IDs that may be used for validating and/or verifying redemption of a promotion.

FIG. **2** depicts an illustrative architecture **200** in which additional techniques for providing games, challenges, and/or promotions to mobile devices may be implemented. In architecture **200**, the service provider computer **110** is again shown in communication with merchant computers **112** and/or third-party computers **116** via one or more networks such as networks **108**. Similarly, in some instances, the merchant computers **112** may be communicatively coupled to one or more POS devices **114** for processing purchase transactions with the users **102**. POS devices **114** may also be configured to communicate directly with the service provider computers **110** to facilitate the providing, managing, and/or processing of the games, challenges, and/or promotions.

In one embodiment, the service provider computer **110** may expose, or otherwise provide, an application programming interface (API) or multiple APIs for communicating with the POS devices **114**, the merchant computers **112**, and/or the third-party computers **116**. More specifically, at a transaction layer **202**, the service provider computers **110** may provide POS specific APIs **204** to each, or some, of the POS devices **114** associated with each, or some, of the merchant computers **112**. For example, a first merchant may utilize a different type of POS device **114** than a second merchant (e.g., the different POS devices **114** may be made by different manufacturers, using different standards, and/or operating with different operating systems or with different architectures). In this example, the transaction layer **202** is configured to handle each transaction between the POS devices **114** and the service provider computers **110**.

In any event, each POS device **114** may communicate with the service provider computers **110** using different POS specific APIs **204**. As such, at a translation layer **206**, each POS specific API **204** may be converted (or translated) into a common API **208** for communication with the loader/router **210** of the service provider computers **110**. In some aspects, the loader/router **210** may be configured to recognize each POS device communication, for example shown as POS A, B, C, D, . . . , Y, appropriately translate each POS specific API **204** to the common API **208**, and further route the common API instructions to the appropriate server, for example, Servers **1**, **2**, **3**, . . . , Z.

Instructions, data, unique IDs **128**, games, challenges, promotions, and/or any other information to be transmitted to the POS devices **114**, mobile devices **104**, merchant computers **112**, and/or third-party computers **116** may then be sent from the appropriate server **1**-Z to the loader/router

210. Based on the common APIs 208, this information may then be sent back to the translation layer 206 for translation back to the POS specific API 204 instructions. Alternatively, or in addition, third party computers 116, POS devices 114, and/or merchant computers 112 may communicate directly with the service provider computers 110 using a standard API. In this example, the translation layer 206, as well as the POS specific APIs 204 may not be utilized.

In architecture 200, the service provider computer 110 is again shown in communication with merchant computers 112 and/or third-party computers 116 via one or more networks such as networks 108. Similarly, in some instances, the merchant computers 112 may be communicatively coupled to one or more POS devices 114 for processing purchase transactions with the users 102. POS devices 114 may also be configured to communicate directly with the service provider computers 110 to facilitate the providing, managing, and/or processing of the games, challenges, and/or promotions

FIG. 3 depicts an illustrative unique ID datastore 148 in which additional techniques for providing games, challenges, and/or promotions to mobile devices may be implemented. As shown in FIG. 3, several different types of unique IDs may be stored, managed, and/or provided by the unique ID datastore 148. By way of example only, types of unique IDs may include mobile code identifiers 302, magnetic stripe cards 304, smart cards 306, and/or smart tags or stickers 308. Additionally, other types of unique IDs may include barcodes (either mobile barcodes or card barcodes) 310, NFC identifiers 312, finger print identifiers 314, and/or other bio-recognition identifiers 316, such as but not limited to face-recognition, eye-recognition, voice-recognition, etc.

In some examples, and when appropriate, the unique ID may be provided to the mobile device 104 of the user 102 to be presented to the merchant. For example, a mobile code identifier 302, a smart tag or sticker 308, a mobile barcode 310, and/or an NFC identifier 312, among others, may be easily transmitted to, and stored thereon, the appropriate mobile device 104. In other examples, however, the unique ID may be presented to the user 102 in ways other than electronically via the mobile device 104. However, in each case, the unique ID itself may be stored in a unique ID datastore 148. Further, the unique ID datastore 148 may be located in the memory 130 of the service provider computer 110, the memory 120 of a mobile device 104, and/or a memory of the merchant computers 112, POS devices 114, and/or third-party computers 116.

Various instructions, methods and techniques described herein may be considered in the general context of computer-executable instructions, such as program modules, executed by one or more computers or other devices. Generally, program modules include routines, programs, objects, components, data structures, etc. for performing particular tasks or implementing particular abstract data types. These program modules and the like may be executed as native code or may be downloaded and executed, such as in a virtual machine or other just-in-time compilation execution environment. Typically, the functionality of the program modules may be combined or distributed as desired in various embodiments. An implementation of these modules and techniques may be stored on some form of computer-readable storage media.

The example architectures and computing devices shown in FIGS. 1-3 are provided by way of example only. Numerous other operating environments, system architectures, and device configurations are possible. Accordingly, embodiments of the present disclosure should not be construed as being limited to any particular operating environment, system architecture, or device configuration.

Illustrative Processes

FIG. 4 is a flow diagram showing process 400 for providing games, challenges, and/or promotions to mobile devices. This process is illustrated as a logical flow graph, each operation of which represents a sequence of operations that can be implemented in hardware, software, or a combination thereof. In the context of software, the operations represent computer-executable instructions stored on one or more computer-readable storage media that, when executed by one or more processors, perform the recited operations. Generally, computer-executable instructions include routines, programs, objects, components, data structures, and the like that perform particular functions or implement particular abstract data types. The order in which the operations are described is not intended to be construed as a limitation, and any number of the described operations can be combined in any order and/or in parallel to implement the process.

The process 400 includes receiving a game and/or challenge from a merchant or a third-party vendor at 402. In one aspect, the game and/or challenge may be provided by the merchant or third-party vendor by filling out a form and/or creating the game and/or challenge using a web-based, menu driven program or application, provided by the service provider computer 110. At 404, the process 400 may receive user and/or location information associated with a mobile device, such as but not limited to one or more of the mobile devices 104 shown in FIG. 1. The process 400 may then determine whether a user 102 of the mobile device 104 has selected a game or a challenge. For example, a list of games and/or challenges may have been presented to the user 102 based on the received location and/or user information. If the user 102 has not selected a game or challenge at 406, the process 400 may select a game or a challenge for the user 102 at 408 based on the user and/or location information received. However, if the user 102 has selected a game or challenge at 406, the process 400 may instead receive the user selection of the game or challenge at 410.

In any event, the process 400 may then transmit the selected game or challenge to the mobile device at 412. As noted above, the game or challenge may either be selected by the service provider computer 110 or by the user. The process 400 may then receive an event outcome indicator from the mobile device at 414. In some instances, the event outcome indicator may be the answer provided by the user 102. However, in other instances, the event outcome indicator may be an indication that the answer was correct, that the challenge has been completed, or that the game has been won. The process may then determine whether the event outcome indicator matches a desired outcome at 416. This may include comparing the answer provided by the user 102 to the answer provided by the merchant computer 112 or the third-party computer 116.

In some instances, if the process 400 determines that the event outcome indicator does not match the desired outcome at 416, then the process may provide an error/"try again" message and 418 and return to receiving user and/or location information associated with the mobile device 104 at 404. Alternatively, if the process 400 determines at 416 that the event outcome indicator matches the desired outcome, the process 400 may provide a promotional offer to the mobile device 102 at 420. The process 400 may then receive a selection of a promotional offer at 422. For example, a user 102 may be presented with multiple promotional offers based on completing the challenge and/or winning the game.

At **424**, the process **400** may then confirm eligibility of the selected promotion and/or eligibility of the user **102**. Assuming the process **400** has affirmatively confirmed eligibility at **424**, the process **400** may then determine and transmit a unique offer code at **426**, such as but not limited to a unique ID from the unique ID datastore **148**. Alternatively, in some instances, the process **400** proceed directly to determining and transmitting the unique offer code at **426** upon determining that the event outcome indicator matches the desired outcome at **416**.

At **428**, the process **400** may receive an authorization request from a merchant computer **112** or the POS device **114** of FIG. **1**. In some instances, this authorization request is in response to the user **102** presenting the unique ID at the merchant's store. The process **400** may then determine whether the unique offer code, or ID, is valid at **430**. Determining whether the unique ID is valid may include comparing the unique ID against a look-up table containing each previously assigned unique ID. If the unique ID is not validated at **430**, the process **400** may transmit a non-authorization indication to the mobile device **104** at **432** and then proceed to receive user and/or location information once again at **404**. On the other hand, if the unique ID is validated at **430**, the process may transmit an authorization indication to the mobile device **104** at **434**. The process **400** may then complete by receiving a redemption indication at **436**. In some instances, the redemption indication may be received from the merchant computer **112** or the third-party computer **116** to indicate that the user **102** has redeemed the promotion or coupon. This may "unlock" the next game and/or challenge associated with the particular merchant and/or third-party vendor. Additionally, this may provide an indication that the redeemed promotion or coupon is no longer valid.

Illustrative methods and systems for providing games, challenges, and/or promotions to mobile devices are described above. Some or all of these systems and methods may, but need not, be implemented at least partially by architectures such as those shown in FIGS. **1-3** above.

CONCLUSION

Although embodiments have been described in language specific to structural features and/or methodological acts, it is to be understood that the disclosure is not necessarily limited to the specific features or acts described. Rather, the specific features and acts are disclosed as illustrative forms of implementing the embodiments.

That which is claimed:

1. A system, comprising:

at least one memory that stores computer-executable instructions;

at least one processor configured to access the at least one memory, wherein the at least one processor is configured to execute the computer-executable instructions to:

receive, from a mobile device, location information associated with the mobile device, wherein the location information associated with the mobile device comprises a global positioning service (GPS) location indicator;

transmit, to the mobile device based at least in part on the location information, content comprising one or more first conditions to be met for receiving one or more first promotional offers associated with one or more merchants;

receive, from the mobile device, an event outcome indicator associated with the one or more first conditions;

transmit, to the mobile device, the one or more first promotional offers based at least in part a comparison of the event outcome indicator to one or more stored event outcome indicators associated with the content;

receive, from the mobile device, a selection of a promotional offer of the one or more first promotional offers;

transmit a unique offer code to the mobile device for use in redeeming the selected promotional offer;

receive, from a point of sale (POS) device, an indication that the unique offer transmitted to the mobile device and associated with the selected promotional offer was redeemed; and

in response to receiving the indication, unlock at least a portion of the one or more first conditions, the at least a portion of the one or more first conditions comprising one or more second conditions to be met for receiving one or more second promotional offers, wherein the unlocking is based at least in part on the one or more merchants and an award amount associated with the redeemed promotional offer.

2. The system of claim **1**, wherein the content comprises a game or challenge configured to be played at least in part with the mobile device.

3. The system of claim **1**, wherein the content is based at least in part on a location of a merchant.

4. The system of claim **1**, wherein the content is associated with a merchant, and the content comprises a game or challenge provided by a third-party associated with the merchant.

5. The system of claim **1**, wherein the content is associated with a merchant, and the content comprises a game or challenge provided by a third-party associated with the merchant, wherein the third-party is located within a predetermined distance of a location indicated by the received location information associated with the mobile device, the third-party is associated with the location indicated by the received location information associated with the mobile device, or the merchant is physically located within a predetermined distance of the location indicated by the received location information associated with the mobile device.

6. The system of claim **1**, wherein the content is associated with a merchant of the one or more merchants or a third party, and the event outcome indicator comprises an indication that a consumer associated with the mobile device has completed a challenge comprising winning a game, achieving a certain number of points, runs, goals, or games, or achieving a certain level or status in a game or series of games, wherein the game or challenge may be operated, played, performed, or provided by the consumer associated with the mobile device or a third party different from the merchant or third party with which the content is associated.

7. The system of claim **1**, wherein the event outcome indicator comprises an indication that the mobile device has at least one of received an award as a result of a game, correctly answered a question, or completed a predefined task.

8. The system of claim **7**, wherein at least one of the game, the question, or the predefined task are received, by the at least one processor, from a third-party or a merchant of the one or more merchants.

9. The system of claim 1, wherein the promotional offer comprises a discount available through a third-party or at a merchant of the one or more merchants, wherein the POS device is associated with the third-party or the merchant.

10. The system of claim 1, wherein the at least one processor is further configured to execute the computer-executable instructions to:

confirm eligibility of the mobile device;

determine the unique offer code for redeeming the selected promotional offer when the mobile device eligibility is confirmed.

11. The system of claim 10, wherein the at least one processor is further configured to execute the computer-executable instructions to:

receive an authorization request from a third-party or a merchant indicating that the unique offer code was presented to the third-party or the merchant; and

transmit, to the third-party or the merchant, an authorization indication when the unique offer code is valid, otherwise, transmit a non-authorization indication.

12. One or more non-transitory computer-readable media storing computer-executable instructions that, when executed by at least one processor, configure the at least one processor to perform operations comprising:

receiving, from a mobile device, location information associated with the mobile device, wherein the location information associated with the mobile device comprises a global positioning service (GPS) location indicator;

determining one or more games or challenges associated with a physical location of a merchant to be transmitted to the mobile device based at least in part on the location information associated with the mobile device, wherein the one or more games or challenges are received from a third-party or the merchant and indicates a target mobile device or location;

transmitting the one or more games or challenges to the mobile device;

receiving, from the mobile device, an event outcome indicator associated with a first game or challenge of the one or more games or challenges, the event outcome indicator configured to indicate when the mobile device has won the first game or challenge;

providing at least one first promotional offer to the mobile device when the event outcome indicator indicates that the mobile device has won the first game or challenge, wherein the providing comprises comparing the event outcome indicator to one or more stored event outcome indicators associated with the first game or challenge;

receiving, from the mobile device, a selection of a promotional offer of the at least one first promotional offer;

transmitting, to the mobile device, a unique offer code for use in redeeming the selected promotional offer;

receive, from a point of sale (POS) device in communication with the mobile device, an indication that the unique offer code transmitted to the mobile device and associated with the selected promotional offer was redeemed; and

in response to receiving the indication, unlock at least a portion of the one or more games or challenges, the at least a portion of the one or more games or challenges comprising one or more second games or challenges, wherein the unlocking is based at least in part on the merchant or third-party, and an award amount associated with the redeemed promotional offer.

13. The one or more non-transitory computer-readable media of claim 12, the operations further comprising:

receiving an authorization request from the third-party or the merchant indicating that the unique offer code was presented to the third-party or the merchant, wherein the POS device is associated with the third-party or the merchant; and

transmitting, to the merchant, an authorization indication when the unique offer code is valid, otherwise, transmitting a non-authorization indication.

14. The system of claim 1, wherein the one or more second promotional offers associated with the unlocked one or more first conditions comprise a respective award amount that is greater than the award amount associated with the redeemed promotional offer.

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